

REMARKS

Claims 1-23 and 25-34 are pending in the present application. Claims 1, 17 and 23 are in independent form. Claims 31-34 are newly-added. Claim 24 is cancelled. Claims 1, 15, 17, 22, 23, 25, 26, 29 and 30 have been amended. In view of the above amendments and the following remarks, favorable reconsideration and allowance of the present application is respectfully requested.

Initially, Applicant appreciates the Examiner's acknowledgment that all certified copies pertaining to foreign priority claimed under 35 U.S.C. §119 have been received, the acceptance of the formal drawings filed on January 3, 2005 and the indication that the references submitted in the Information Disclosure Statement filed on January 3, 2005 have been considered.

I. **CITED ART REJECTIONS**

(A) *Claims 1-4, 10-16 and 23-27 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Courtney et al. (hereinafter "Courtney"), U.S. Patent No. 5,058,776. Applicant respectfully traverses the rejection.*

i. **INDEPENDENT CLAIM 1**

Independent claim 1 is directed to a particulate dispensing apparatus for dispensing particulate refractory material into a lining gap defined between an inner furnace surface and an expendable metal form, said particulate dispensing apparatus including (*inter alia*) "a feeder coupled to

the outlet of said hopper, said feeder for moving the particulate refractory material from said outlet to a dispenser, said dispenser being coupled to said carriage at a distal end of said feeder and being suspended above and extendable into said lining gap to reduce the distance the particulate refractory material falls thereby to reduce the occurrence of airborne particulate material." Applicant submits that Courtney fails to explicitly teach, or otherwise suggest, the above features recited in amended independent claim 1.

a. COURTNEY

Courtney discloses an apparatus for dispensing particles into an annular pattern in relining a foundry furnace. The apparatus comprises a platform removably positioned atop the form and having a circular track. The apparatus further comprises a carriage rotatably mounted on the platform and riding on wheels that travel along the circular track. A supply of the refractory particles is loaded into a hopper carried by the carriage. A feeder conveys particles from the hopper for discharge into the space. During use, the carriage rotates while continuously dispensing particles to uniformly distribute the particles into the space. After filling, the apparatus is removed from the form, whereafter the refractory particles are sintered into a continuous lining.

Although Courtney discloses a dispenser for delivering particulate refractory material into the gap, Courtney does not teach, or suggest, the claimed apparatus. In particular, Courtney fails to teach, or suggest, a

dispenser that is “suspended above and extendable into the lining gap to reduce the distance the particulate refractory material falls thereby to reduce the occurrence of airborne particulate material” as recited in amended independent claim 1. Rather, Courtney shows a dispenser that is fixed to and extends radially from the rotatable feeder with the discharge end of the dispenser overlaying the space into which particulate matter is to be dispensed. The Courtney dispenser is not movable relative to the rotatable feeder and certainly is not extendable into the space into which particulate matter is to be dispensed to reduce the occurrence of airborne particulate material.

Accordingly, Applicant submit that Courtney fails to explicitly teach, or otherwise suggest, a particulate dispensing apparatus for dispensing particulate refractory material into a lining gap defined between an inner furnace surface and an expendable metal form, said particulate dispensing apparatus including “a feeder coupled to the outlet of said hopper, said feeder for moving the particulate refractory material from said outlet to a dispenser, said dispenser being coupled to said carriage at a distal end of said feeder and being suspended above and extendable into said lining gap to reduce the distance the particulate refractory material falls thereby to reduce the occurrence of airborne particulate material” as recited in amended independent claim 1.

Accordingly, Applicant respectfully request that the Examiner reconsider and withdraw the rejection to independent claim 1, and claims 2-4 and 10-16 at least by virtue of their dependency on independent claim 1.

ii. INDEPENDENT CLAIM 23

A particulate dispensing apparatus for dispensing particulate refractory material into a gap between a furnace wall and a form including (*inter alia*) “a particulate refractory material feed assembly on said frame assembly for delivering particulate refractory material in a smooth and consistent manner to a dispenser on said carriage, said dispenser delivering particulate refractory material into said gap and being suspended above and extendable into said gap to reduce the distance the particulate refractory material falls thereby to reduce the occurrence of airborne particulate material.” Thus, independent claim 23 is patentable over Courtney for similar reasons as given above with respect to independent claim 1.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection to independent claim 23, and claims 24-27 at least by virtue of their dependency on independent claim 23.

(B) *Claims 5-9 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Courtney in view of Reeves, U.S. Patent No. 5,697,508. Applicant respectfully traverses the rejection.*

For the following reasons, Reeves fails to cure the deficiencies of Courtney. Reeves discloses a container filling apparatus for filling a container with damageable particulate material and in particular foodstuffs. The apparatus comprises a filling chute in the form of an extendable and retractable telescopic tube for extending downwardly into the container. The

tube has a closure device for closing the otherwise open lower end of the tube and a cable device to lower the tube as it extends downwardly into the container. A filling device is provided to supply material into the upper end of the tube as it is lowered, as well as a device for sensing contact with the floor of the container. An operating device is provided to open the closure device in response to a signal from the device for sensing the floor of the container. A probe is mounted at the bottom of the container and/or the level of material in the container. A second probe is mounted at the top of the tube to sense when the tube has been filled to the level of the probe and to temporarily interrupt the feed of material to the tube. There is also a device to operate the cable device to gradually withdraw the tube while the filling device continues to supply material to the tube, such that no free fall of material occurs within or on leaving the tube.

Furthermore, Applicant respectfully submits that one of ordinary skill in the art would not combine the teachings of Courtney and Reeves as alleged. Courtney relates to foundry furnace construction whereas as Reeves relates to food packaging. One of ordinary skill in the art of foundry furnace construction would not look to the food packaging art for inspiration. The environment associated with foundry furnaces is harsh and unsterile; an environment very different from the sterile food packaging environment. Furthermore, the design of the Reeves filling apparatus is not suited to the rotating environment of the Courtney foundry particulate material dispensing apparatus as the mechanism to retract the foodstuff delivery tube enters the foodstuff delivery tube through a side duct formed

in the foodstuff delivering tube and makes use of cables which are prone to sway. Thus, there is no motivation to combine the teachings of Courtney and Reeves.

For at least these reasons, Applicant submits that claims 5-9, at least by virtue of their dependency on independent claim 1, are patentable over the combination of Courtney and Reeves.

Thus, reconsideration and withdrawal of the rejection is respectfully requested.

(C) *Claims 17, 20-22 and 28-30 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Courtney. Applicant respectfully traverses the rejection.*

Independent claim 17 is directed to a particulate dispensing apparatus for dispensing particulate refractory material into a lining gap between an inner furnace wall and an expendable metal form including (*inter alia*) “a feeder coupled to the outlet of said hopper, said feeder having an auger extending through the length thereof having an encircling blade for moving the particulate refractory material from said outlet to a dispenser, said dispenser being coupled to said carriage at a distal end of said feeder and being suspended above and extendable into said lining gap to reduce the distance the particulate refractory material falls thereby to reduce the occurrence of airborne particulate material.” Thus, independent claim 17 is patentable over Courtney for similar reasons as given above with respect to independent claim 1.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection to independent claim 17, and claims 20-22 at least by virtue of their dependency on independent claim 17.

As discussed above, Courtney fails to teach, or suggest, all of the features recited in independent claim 23. As such, claims 28-30, at least, by virtue of their dependency on independent claim 23, are patentable over Courtney.

Thus, reconsideration and withdrawal of the rejection is respectfully requested.

(C) *Claims 18 and 19 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Courtney in view of Reeves. Applicant respectfully traverses the rejection.*

For the reasons discussed above, Courtney fails to teach, or suggest, all of the features recited in independent claim 17. As such, claims 18 and 19, at least, by virtue of their dependency on independent claim 17, are patentable over Courtney.

Thus, reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

Accordingly, in view of the above, reconsideration of the rejections and allowance of each of claims 1-23 and 25-34 in connection with the present application is earnestly solicited.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) hereby petition(s) for a three (3) month extension of time for filing a reply to the outstanding Office Action and submit the required \$555.00 extension fee herewith.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By 
Donald J. Daley, Reg. No. 34,313


DJD/CDW:ljs

P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000